

2019 Rural Mail Count

I. PREFACE

A. Purpose and Content

USPS-FY19-40 aggregates data collected from the most recent (March 2018) Rural Mail Count (RMC) for two purposes: 1) to determine the sizes of the cost pools by route type ('Evaluated' and 'Other'); and 2) to use the results from part 1) to calculate volume variability factors by route type. The relevant results of this aggregation are included in USPS-FY19-32 and USPS-FY19-NP14 (commonly called the "B" Workpapers) in workbook I-Forms, tab I-Factors.

B. Predecessor Documents

ACR 2018, USPS-FY18-40.

C. Corresponding Non-Public or Public Document

There is no corresponding non-public document to USPS-FY19-40.

D. Methodology Changes

None

E. Input/Output

USPS-FY19-40 relies on no inputs from other ACR materials. Outputs are used by USPS-FY19-32 and USPS-FY19-NP14.

II. ORGANIZATION

In addition to this preface, the relevant source code and RMC data are provided in a zip file. The contents of the zip file are described below.

The zip file that accompanies USPS-FY19-40 includes the following files:

FY2018.March.RMCFlat.data
RMC2019AnalysisforCRA.sas

RMC Dataset
SAS program for analysis of RMC data

III. RMC DOCUMENTATION

A. Overview

USPS-FY19-40 contains the data from the March 2018 RMC and the SAS program, SAS log, and SAS output files from the March 2018 RMC. The SAS log and corresponding output file are included starting on page 3 of this preface.

The RMC data has the most recent route evaluations performed on each active rural route. The data includes the route type ('Evaluated' and 'Other'), counts for each evaluation item, and the time allowance given for each evaluation item. The output from the SAS program is used in two ways: 1) to determine the sizes of the cost pools by route type; and 2) to use the results from part 1) to calculate volume variability factors by route type. The most recent evaluation was used for the FY2019 Cost and Revenue Analysis Report (CRA). The RMC conducted in March 2018 was used for FY2019.

B. Use of RMC in Cost Attribution

Rural carrier variability ratios are used to divide total rural carrier labor costs into variable and non-variable costs, as shown in USPS-FY19-32 and USPS-FY19-NP14, workbook CS10.xls, tab WS 10.0.1. Average weekly pieces are used to divide variable evaluation factors into cost pools for each rural evaluation category, such as the delivery of cased letters, FSS flats, and parcels. This analysis using the March 2018 RMC data is shown in workbook CS10.xls, tabs WS10.1.1 PQ1-2, WS10.2.1 PQ1-2, WS10.1.1 PQ3-4 and WS10.2.1 PQ 3-4.

C. RMC Data and Analysis

The RMC dataset contains the most recent evaluation for each rural route. The March 2018 dataset has 75,177 records. Each record represents an active rural route and it includes the type of route ('Evaluated' and 'Other'), totals by each evaluation factor, number of weeks the route was counted, and the time allotment by evaluation item. Those data elements are used to compute the average time by evaluation category per route. The averages are then aggregated by route type for each evaluation item. Each evaluation item is treated as either 'fixed' (e.g. boxes served) or 'variable' (e.g. DPS letters delivered). The volume variability factor for each route type is calculated by taking the ratio of the sum of all variable evaluation factors to the total over the sum of fixed and variable evaluation factors by route type.

D. SAS Log Listing

SAS log from the March 2018 RMC data file.

NOTE: SAS initialization used:

real time 2.33 seconds
cpu time 1.31 seconds

```

1
2 libname RMC "Y:\Cost Attribution\FY19-USPS-40\FY19 SAS";
NOTE: Libref RMC was successfully assigned as follows:
   Engine:          V9
   Physical Name:  Y:\Cost Attribution\FY19-USPS-40\FY19 SAS
3  OPTION USER =RMC;

4
5 filename MAIL 'Y:\Cost Attribution\FY19-USPS-40\FY2018.MARCH.RMCFLAT.DATA';
6 run;
7 *****READ IN UNIVERSE DATA;
8 DATA A ; INFILE MAIL MISSOVER LRECL = 820;
9 Input
10 RTTYPE $ 1-5
11 MILES 6-10 .2
12 BOXESR 11-20
13 BOXESC 21-30
14 NDCBU 31-40
15 PARLOCK 41-50
16 LETTERS 51-60
17 FLATS 61-70
18 PARCELS 71-80
19 BOXHOLD 81-90
20 REGCERT 91-100
21 CODCUST 101-110
22 CHGADDR 111-120
23 MARKUP 121-130
24 f3821 131-140
25 DPS 141-150
26 SECSEG 151-160
27 MONORDR 161-170
28 LETCOLL 171-180
29 PARCACC 181-190
30 REGACC 191-200
31 POSTDUE 201-210
32 LOADING 211-220
33 ALLOW 221-230
34 DSMOUNT 231-240
35 DSMFEET 241-250
36 PURCHST 251-260 .2
37 RETRCT 261-270 .2
38 POUCHST 271-280 .2
39 DLLETRT 281-290 .2
40 DLFLATT 291-300 .2
41 DLPAROT 301-310 .2
42 DLPARRT 311-320 .2
43 WITHDT 321-330 .2
44 STRAPT 331-340 .2
45 LOADNGT 341-350 .2

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46 RETRCTT 351-360 .2
47 DISMNTT 361-370 .2
48 DISMNTDT 371-380 .2
49 BOXHLDT 381-390 .2
50 CODCSOT 391-400 .2
51 DLREGOT 401-410 .2
52 MARKUPT 411-420 .2
53 ADDRESS 421-430 .2
54 MNORDOT 431-440 .2
55 COLLFT 441-450 .2
56 PPACCOT 451-460 .2
57 STAMPST 461-470 .2
58 F3821T 471-480 .2
59 ALLOWT 481-490 .2
60 POSTDUT 491-500 .2
61 PERSNLT 501-510 .2
62 CODCSRT 511-520 .2
63 DLREGRT 521-530 .2
64 MNORDRT 531-540 .2
65 PPACCRT 541-550 .2
66 COLREGT 551-560 .2
67 MILEST 561-570 .2
68 BOXESRT 571-580 .2
69 BOXESCT 581-590 .2
70 NDCBUT 591-600 .2
71 PARLCKT 601-610 .2
72 POUCHT 611-620 .2
73 SECSEGT 621-630 .2
74 DPST 631-640 .2
75 GOVVEHT 641-650 .2
76 REUNLDT 651-660 .2
77 TOTHR 661-670 .2
78 TOTMIN 671-680 .2
79 ACTLHRS 681-690 .2
80 YEAR 691-695
81 SCANITEM 696-705
82 CPU 706-715
83 CPUITEM 716-725
84 DPSFLAT 726-735
85 PARS 736-745
86 SCANT 746-755 .2
87 SCNITEMT 756-765 .2
88 CPUOFCT 766-775 .2
89 CPURTET 776-785 .2
90 CPUITEMT 786-795 .2
91 DPSFLATT 796-805 .2
92 PARST 806-815 .2
93 Cntlen 816
94 LSTATUS \$ 818
95 GOVVEH \$ 820 ;
96

NOTE: The infile MAIL is:

Filename=Y:\Cost Attribution\FY19-USPS-40\FY2018.MARCH.RMCFLAT.DATA,
RECFM=V,LRECL=820,File Size (bytes)=61795494,
Last Modified=08May2018:09:13:37,
Create Time=03Sep2019:10:06:20

NOTE: 75177 records were read from the infile MAIL.

The minimum record length was 820.

The maximum record length was 820.

NOTE: The data set RMC.A has 75177 observations and 86 variables.

NOTE: DATA statement used (Total process time):

real time	1:38.31
cpu time	0.95 seconds

97 proc print data = a(obs = 200); var cntlen boxesr boxesc ndcbu boxhold boxhldt;

NOTE: Writing HTML Body file: sashtml.htm

98 run;

NOTE: There were 200 observations read from the data set RMC.A.

NOTE: PROCEDURE PRINT used (Total process time):

real time	2.48 seconds
cpu time	0.26 seconds

99

100

101 DATA A;

102 SET A;

103

104 IF RTTYPE = 'H' OR RTTYPE = 'J' OR RTTYPE = 'K' THEN TYPE = 'EVAL';

105 ELSE IF RTTYPE = 'A' OR RTTYPE = 'M' THEN TYPE = 'OTHR';

106 ELSE DELETE;

107

108

NOTE: There were 75177 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75177 observations and 87 variables.

NOTE: DATA statement used (Total process time):

real time	1:35.27
cpu time	0.11 seconds

109 PROC FREQ DATA = A; TABLES YEAR*TYPE;

NOTE: There were 75177 observations read from the data set RMC.A.

NOTE: PROCEDURE FREQ used (Total process time):

real time	1:17.65
cpu time	0.17 seconds

110 DATA A; SET A;

111

112 LETTERS = LETTERS / CNTLEN;

113 FLATS = FLATS / CNTLEN;

114 PARCELS = PARCELS / CNTLEN;

115 BOXHOLD = BOXHOLD / CNTLEN;

116 REGCERT = REGCERT / CNTLEN;

117 CODCUST = CODCUST / CNTLEN;

118 MARKUP = MARKUP / CNTLEN;

119 MONORDR = MONORDR / CNTLEN;

120 DPS = DPS / CNTLEN;

121 LETCOLL = LETCOLL / CNTLEN;

122 PARCACC = PARCACC / CNTLEN;

123 REGACC = REGACC / CNTLEN;

124 POSTDUE = POSTDUE / CNTLEN;

```

125 LOADING = LOADING / CNTLEN;
126 RETRCT = RETRCT / CNTLEN;
127 SECSEG = SECSEG / CNTLEN;
128 F3821 = F3821 / CNTLEN;
129 CHGADDR = CHGADDR / CNTLEN;
130 DSMOUNT = DSMOUNT / CNTLEN;
131 DSMFEET = DSMFEET / CNTLEN;
132 SCANITEM = SCANITEM / CNTLEN;
133 CPU = CPU / CNTLEN;
134 CPUITEM = CPUITEM / CNTLEN;
135 DPSFLAT = DPSFLAT / CNTLEN;
136 PARS = PARS / CNTLEN;
137
138 *****;
139 *** CALCULATE AVERAGE VALUES PER ROUTE          ***;
140 *****;

```

NOTE: There were 75177 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75177 observations and 87 variables.

NOTE: DATA statement used (Total process time):

```

real time      1:27.66
cpu time       0.17 seconds

```

```

141 DATA A; SET A;
142 BOXESRL = 0;
143 L=0;
144 IF LSTATUS = 'L' THEN DO
145   BOXESRL = BOXESR;
146   BOXESR=0;
147   L = 1;
148 END;
149 *;
150 *SEASONAL ROUTES WILL HAVE VERY LOW MILEAGE PUT IN TO KEEP;
151 *ROUTE ACTIVE, SO REMOVE ROUTES WITH LOW MILEAGE;
152 *;
153 IF LETTERS = 0 or MILES LE .5 then delete;
154 OUTPUT;

```

NOTE: There were 75177 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 89 variables.

NOTE: DATA statement used (Total process time):

```

real time      1:24.58
cpu time       0.14 seconds

```

```

155 DATA A; SET A;
156 *;
157 *NEW STARTING OCT 30 2004 - ALL RURAL ROUTES TO GET 18 MIN;
158 *FOR RELOAD/UNLOAD TIME. SEE MOU;
159 *EVALUATION MAY NOT SHOW THIS, SO PUT IT IN;
160 *THE 18 MIN IS THE SAME REGARDLESS OF VOLUME, SO PUT IN;
161 *FIXED TIME;
162 *;
163 REUNLDT = 18;
164 *;
165 *ALSO, IN FY 2005 ADDED IN GOVERNMENT VEHICLE USAGE TIME
166 *TO FIXED FACTORS;

```

```

167 *****;
168 * NEW FOR FY 2009;
169 * SCANT = 6 MIN PER WEEK;
170 * SCANNER ITEMS = NON-SIGNATURE SCANT ITEMS, 18 SEC PER SCAN;
171 * INCLUDES DEL CON, SCAN, DU SAT & BUN SCANT
172 * CARRIER PICKUP = NUMBER OF REQUESTS (90 SEC PER REQUEST),
173 * NUMBER OF ITEMS (9 SEC PER ITEM),
174 * INCLUDES EM, PRIO, INTL
175 * 3982 LABELS = PARS LABEL, 15 SEC
176 *****;
177 * CALCULATE THE AVERAGE VALUE PER WEEK FOR EACH EVALUATION ITEM **;
178 * TO PUT INTO SPREADSHEETS WS 10.1.1 AND 10.2.1 **;
179 *****;
180 * FSS EVALUATION FACTOR (I.E. DPS FLATS) DIFFERENT FOR GOVVEH / NON GOVVEH - NEW FY
2011;
181 * new for sept. 2012 RMC do same for DPS;
182
183 FSS1 = 0; FSS2 = 0;
184 DPS1 = 0; DPS2 = 0;
185 IF GOVVEH = 'G' THEN DO;
186 FSS1 = DPSFLAT; FSS2 = 0;
187 DPS1 = DPS; DPS2=0;
188 END;
189 ELSE DO;
190 FSS2 = DPSFLAT; FSS1 = 0;
191 DPS2 = DPS; DPS1 = 0;
192 END;
193

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 93 variables.

NOTE: DATA statement used (Total process time):

```

real time    1:26.46
cpu time     0.14 seconds

```

```

194 DATA A; SET A;
195 IF LSTATUS = 'L' THEN HD = 1; ELSE HD = 0;
196

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 94 variables.

NOTE: DATA statement used (Total process time):

```

real time    1:30.38
cpu time     0.20 seconds

```

```

197 PROC SORT DATA = A; BY TYPE;
198 TITLE1 'THE MEANS OF THE VARIABLES ON THE ROUTES:';

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 94 variables.

NOTE: PROCEDURE SORT used (Total process time):

```

real time    1:46.53
cpu time     0.15 seconds

```

```

199 PROC MEANS DATA=A MEAN STD;

```

```

200 BY TYPE;
201 VAR MILES BOXESR BOXESCT BOXESRL NDCBUT PARLOCK POUCHT WITHDT
202 LETTERS FLATS PARCELS BOXHOLD CODCUST REGCERT MARKUP CHGADDR
203 F3821 LOADING PERSNLT MONORDR LETCOLL PARCACC REGACC POSTDUE
204 STAMPST RETRCT ALLOWT DSMOUNT DSMFEET DPS1 DPS2 SECSEG REUNLDT GOVVEHT
205 SCANT SCANITEM CPU CPUITEM FSS1 FSS2 PARS ;
206

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: PROCEDURE MEANS used (Total process time):

```

real time    48.22 seconds
cpu time     0.65 seconds

```

```

207 DATA A; SET A;
208 *****;
209 *OTHER CHANGES FY 2009:
210 *1. FORMS 3579 NO LONGER USED;
211 *2. REPLACE WITH FORM 3821 CLEARANCE ITEMS - TREAT AS FIXED ; ;
212 *3. APR 2009 - NO REQUIREMENT FOR LOADING TIME TO BE <= 90;
213 *4. NO LONGER APPLICABLE - STAMPS TIME IS 20 MINUTES FOR ;
214 * ROUTE REGARDLESS OF L STATUS (4/23/09
215 *****;
216 STAMPST = STAMPST; STAMPSTV = 0;
217 LOADTF = LOADNGT * .5;
218 LOADTV = LOADNGT * .5;
219 F3821TF = F3821T;
220
221 IF PPACRT = 0 THEN PPACRT = PPACOT;
222
223 FIXED = MILEST + BOXESRT + BOXESCT + NDCBUT + PARLCKT + POUCHT
224 + WITHDT + ADDRESS + F3821TF + LOADTF + PERSNLT + STAMPST
225 + ALLOWT + DISMNTT + DISMNTDT + GOVVEHT + REUNLDT + PARST + SCANT;
226 VARIABLE =
227 DLLETRT + DLFLATT + DLPAROT + DLPARRT
228 + BOXHLDT + CODCSOT + CODCSRT
229 + DLREGOT + DLREGRT + MARKUPT + STRAPT + LOADTV
230 + MNORDOT + MNORDRT + COLLFT + PPACOT + PPACRT + COLREGT
231 + POSTDUT + STAMPSTV + RETRCTT + DPST + SECSEGT + CPUOFACT + CPURTET +
232 + CPUITEMT + DPSFLATT + SCNITEMT ;
233
234 TOTAL = FIXED + VARIABLE;
235 RATIO = VARIABLE/TOTAL;

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 103 variables.

NOTE: DATA statement used (Total process time):

```

real time    1:00.10
cpu time     0.17 seconds

```

```

236 PROC SORT DATA=A; BY TYPE;

```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.A has 75159 observations and 103 variables.

NOTE: PROCEDURE SORT used (Total process time):

```

real time    1:01.05
cpu time     0.21 seconds

```

```
237 PROC MEANS DATA=A NOPRINT;  
238 BY TYPE;  
239 VAR VARIABLE TOTAL;  
240 OUTPUT OUT=VAR MEAN=;
```

NOTE: There were 75159 observations read from the data set RMC.A.

NOTE: The data set RMC.VAR has 2 observations and 5 variables.

NOTE: PROCEDURE MEANS used (Total process time):

real time	38.45 seconds
cpu time	0.07 seconds

```
241 DATA VAR; SET VAR;  
242 VARRAT = VARIABLE/TOTAL;
```

NOTE: There were 2 observations read from the data set RMC.VAR.

NOTE: The data set RMC.VAR has 2 observations and 6 variables.

NOTE: DATA statement used (Total process time):

real time	2.33 seconds
cpu time	0.01 seconds

```
243 PROC PRINT DATA=VAR;  
244 TITLE1 'RATIO OF VARIABLE TO TOTAL FOR EVAL/OTHER';  
245 RUN;
```

NOTE: There were 2 observations read from the data set RMC.VAR.

NOTE: PROCEDURE PRINT used (Total process time):

real time	0.44 seconds
cpu time	0.03 seconds

E. SAS Program Output

SAS output from the March 2018 RMC data file.

The SAS System

The FREQ Procedure

Table of YEAR by TYPE

YEAR	TYPE		
Frequency	EVAL	OTHR	Total
Percent			
Row Pct			
Col Pct			
2012	1448	1	1449
	1.93	0.00	1.93
	99.93	0.07	
	2.10	0.02	
2013	877	0	877
	1.17	0.00	1.17
	100.00	0.00	
	1.27	0.00	
2014	590	0	590
	0.78	0.00	0.78
	100.00	0.00	
	0.86	0.00	
2015	1624	0	1624
	2.16	0.00	2.16
	100.00	0.00	
	2.36	0.00	
2016	2478	529	3007
	3.30	0.70	4.00
	82.41	17.59	
	3.60	8.43	
2017	113	11	124
	0.15	0.01	0.16
	91.13	8.87	
	0.16	0.18	
2018	61770	5736	67506
	82.17	7.63	89.80
	91.50	8.50	
	89.65	91.38	
Total	68900	6277	75177
	91.65	8.35	100.00

THE MEANS OF THE VARIABLES ON THE ROUTES:

TYPE=EVAL

The MEANS Procedure

Variable	Mean	Std Dev
MILES	49.6943337	30.0451616
BOXESR	190.4166824	245.1876853
BOXESCT	142.2871595	235.7356133
BOXESRL	287.7225359	289.8198645
NDCBUT	9.0511618	17.3966373
PARLOCK	14.6644363	27.9535237
POUCHT	0.9592302	7.2542563
WITHDT	26.8384157	9.2115768
LETTERS	1274.75	922.4298817
FLATS	2640.53	1007.51
PARCELS	457.1471211	187.5434747
BOXHOLD	627.2347107	543.0862613
CODCUST	0.0481163	0.2901188
REGCERT	18.7137138	13.8331912
MARKUP	66.3898170	35.1932463
CHGADDR	0.7287987	1.9328448
f3821	3.2349405	2.5824355
LOADING	78.1819088	28.5605518
PERSNLT	30.0000000	0
MONORDR	0.0320759	0.4112896
LETCOLL	530.4648931	411.3449994
PARCACC	0.5343087	3.3028422
REGACC	0.2660513	2.9456486
POSTDUE	1.1702129	2.0410865
STAMPST	20.0000000	0
RETRCT	0.0587720	3.0691182
ALLOWT	47.6903131	32.9928562
DSMOUNT	53.7509978	116.4207501
DSMFEET	5063.37	9658.48
DPS1	5754.53	5342.95
DPS2	2863.20	3651.44
SECSEG	62.8470805	413.5571150
REUNLDT	18.0000000	0
GOVVEHT	18.4880596	16.4777987
SCANT	6.0000000	0
SCANITEM	575.2552456	237.4884460
CPU	4.9640053	6.4544678
CPUIITEM	24.5255156	79.2953615
FSS1	219.5908576	668.6616744
FSS2	4.6919162	88.2695498
PARS	3.2823021	3.3344946

THE MEANS OF THE VARIABLES ON THE ROUTES:

TYPE=OTHR

The MEANS Procedure

Variable	Mean	Std Dev
MILES	30.3000463	19.7029063
BOXESR	117.1423323	123.6010584
BOXESCT	74.8648562	123.9219843
BOXESRL	87.6289137	135.2462566

NDCBUT	5.1964856	11.9219135
PARLOCK	8.0223642	16.5047930
POUCHT	2.2380192	11.1729805
WITHDT	24.6757188	11.4630474
LETTERS	597.4146166	697.6142790
FLATS	1056.20	564.5840045
PARCELS	190.7811502	108.1594504
BOXHOLD	247.5099042	257.5089119
CODCUST	0.0182907	0.1551459
REGCERT	7.9848243	7.5682659
MARKUP	42.3622204	25.0584121
CHGADDR	0.3172524	0.9045726
f3821	1.9512780	2.1575447
LOADING	40.7180511	19.4349290
PERSNLT	30.0000000	0
MONORDR	0.0329073	0.3737302
LETCOLL	242.5718051	257.2384416
PARCACC	0.3916134	3.3881769
REGACC	0.1200479	1.7380838
POSTDUE	0.5566294	1.2323964
STAMPST	20.0000000	0
RETRCT	0.0099042	0.2758843
ALLOWT	34.6019169	60.0672228
DSMOUNT	29.5654153	47.2347531
DSMFEET	3223.64	6257.21
DPS1	1263.36	2196.79
DPS2	1524.23	2113.82
SECSEG	535.8591853	856.3873523
REUNLDT	18.0000000	0
GOVVEHT	11.1647412	15.0791857
SCANT	6.0000000	0
SCANITEM	239.3134984	142.6733692
CPU	2.4829073	5.5147071
CPUIITEM	14.5806709	84.6729324
FSS1	34.4394569	194.7244650
FSS2	12.8216454	107.0804416
PARS	1.4780351	2.0163190

RATIO OF VARIABLE TO TOTAL FOR EVAL/OTHER

Obs	TYPE	_TYPE_	_FREQ_	VARIABLE	TOTAL	VARRAT
1	EVAL	0	68899	1229.39	3153.78	0.38982
2	OTHR	0	6260	536.84	1579.05	0.33998